SERVICE BULLETIN

Engine – High Pressure Turbine Disk – Replace

1. Planning Information

A. Effectivity:

This document applies to the following Williams International turbofan engines:

ENGINE MODEL NUMBER	ENGINE PART NUMBER	ENGINE SERIAL NUMBERS
FJ44-2A	56000	1005, 1007, 1062, 1068, 105007, 105038, 105057, 105059, 105060, 105074, 105078, 105081, 105103, 105109, 105128, 105129, 105140, 105145, 105154, 105172, 105181, 105185, 105188, 105215, 105223 – 105231, 105234 – 105237, 105240, 105244 – 105257, 105260 – 105265, 105267 – 105269, 105271, 105274 – 105289, 105291 – 105293, 105295, 105296, 105299 – 105307, 105309, 105310, 105313, 105315, 105316, 105318 – 105324, 105329 – 105335, 105337 – 105342, 105344, 105346, 105347, 105350, 105353 – 105359, 105361, 105362, 105365 – 105370, 105372 – 105380, 105385 – 105388, 105391 – 105396, 105399 – 105408, 105411 – 105417, 105419 – 105425, 105427 – 105436, 105438 – 105480, 105482 – 105502
FJ44-2A	56000-103	110006, 110011 – 110016
FJ44-2A	56000-104	1016, 116048 – 116055, 116058 – 116071, 116074, 116076 – 116093
FJ44-2C	60500	1012, 1014, 1015, 1040, 1041, 1079, 1087, 1088, 1093, 1103, 1108, 1109, 1126, 1132, 126004, 126049, 126051, 126053, 126094, 126138, 126142, 126143, 126146 – 126149, 126151, 126174, 126196, 126202, 126203, 126237, 126245, 126249, 126255, 126271, 126278, 126280, 126345
FJ44-3A	67000-200	141113, 141115, 141267, 141285, 141301, 141311, 141339, 141359, 141393, 141404, 141422, 141507, 141523, 141560, 141590, 141598, 141650, 141668, 141684, 141697, 141725, 141886
FJ44-3A-24	75000-200	216025, 216060, 216065, 216099, 216101, 216140, 216141, 216214, 216216, 216305, 216372

B. Reason:

To incorporate new configuration high pressure turbine (HPT) assemblies and, as applicable, new configuration combustor assemblies on the above-listed engines.

C. Compliance:

This service document is **MANDATORY** and should be complied with no later than the applicable total HPT Cycles identified in the table below.

HPT P/N 67093 Disks Cycles at Original Release Date of WISB-72-1032	Total HPT Disk Cycles To Comply with WISB-72-1032 No Later Than
0 up to 1000	1620
1000 up to 2000	2530
2000 up to 3000	3245
3000 up to 4000	4130
4000 and higher	*130 cycles beyond the amount on the HPT Disk at Original Release Date of WISB-72-1032

D. Coverage:

When performed per the compliance directive above and as directed by Williams International:

- Materials and labor identified in this service document will be covered for engines enrolled in TAP.

- For engines not enrolled in TAP:
  - A prorated price for the HPT disk will be provided.
  - The labor identified in this service document will be covered, if performed outside of a Major Periodic Inspection.

E. Description:

This service document gives instructions to remove and replace HPT assemblies, containing HPT disk P/N 67093, and in addition, for the FJ44-2A and FJ44-2C engines, incorporate the latest configuration combustor assembly.

Note: If HPT disk P/N 59387 is installed, this constitutes as compliance with this service document.

F. Approval:

The technical content of this service document is FAA approved as applicable to the engine models and serial numbers identified. It is the aircraft owner/operator responsibility to coordinate with the appropriate aviation authority overseeing the aircraft maintenance and operations, as required, prior to flight.

G. Manpower:

25 hours per engine. This covers preparation for maintenance, line maintenance level tasks, putting the aircraft back to normal, engine testing, and documentation.

H. Material:

FJ44-2A & FJ44-2C		
PART NUMBER	**NOMENCLATURE**	**QTY**
223703* / 223713*	ROTOR ASSY, HP TURBINE (Use only with 224834 -2 HP COMB/FUEL SLINGER ASSY KIT)	1
224834	KIT, HP COMB/FUEL SLINGER ASSY, -2	1

*Contains HPT Disk P/N 223704.

FJ44-3A		
PART NUMBER	**NOMENCLATURE**	**QTY**
223723**	ROTOR ASSY, HP TURBINE	1

**Contains HPT Disk P/N 223724.

FJ44-3A-24		
PART NUMBER	**NOMENCLATURE**	**QTY**
223723** / 223803***	ROTOR ASSY, HP TURBINE	1

**Contains HPT Disk P/N 223724.
***Contains HPT Disk P/N 223804.

I. Tooling Required:

Not Applicable.

J. Weight and Balance:

Not Applicable.

K. Electrical Load Data:

Not Applicable.

L. Software Configuration:

Not Applicable.

M. References:

Aircraft Maintenance Manual.
FJ44-2A Line Maintenance Manual.
FJ44-2C Line Maintenance Manual.
FJ44-3A/3A-24 Line Maintenance Manual.
FJ44-2A Engine Manual.
FJ44-2C Engine Manual.
FJ44-3A/3A-24 Engine Manual.

N. Other Publications Affected:

Not Applicable.

O. Family Tree Charts of Modification Relationships:

Not Applicable.

2. Accomplishment Instructions – FJ44-2A & FJ44-2C

A. Prepare the engine for maintenance as applicable.

1) Install DO NOT OPERATE signs.

2) Open the circuit breakers to isolate the engine electrical supply.

3) Remove the cowling. Refer to the Aircraft Maintenance Manual.

4) Remove Aircraft Exhaust Nozzle. Refer to the Aircraft Maintenance Manual.

B. Remove the Rear Bypass Duct Assembly in accordance with TASK 72-00-71-020-801 of the applicable Line Maintenance Manual.

C. Remove the HP Turbine Rotor Assembly containing P/N 67093 HPT Disk in accordance with TASK 72-00-51-020-801 of the applicable Engine Manual.

D. Incorporate HPT Turbine Combustor / Fuel Slinger Module with Enlarged TOBI Holes P/N 224834.

Option 1 – Replacement

1) Remove the HP Turbine Combustor / Fuel Slinger Module in accordance with TASK 72-00-46-020-801 of the applicable Engine Manual.

2) Install the HP Turbine Combustor / Fuel Slinger Module P/N 224834 in accordance with TASK 72-00-46-420-801 of the applicable Engine Manual.

Option 2 – Rework

1) Rework the HP Turbine Combustor / Fuel Slinger Module in accordance with service letter WISL-72-1116.

E. Install the HP turbine rotor assembly containing a P/N 223704 HPT disk in accordance with TASK 72-00-51-420-801 of the applicable Engine Manual.

F. Install the Rear Bypass Duct Assembly in accordance with TASK 72-00-71-420-801 of the applicable Line Maintenance Manual.

G. Put the aircraft back to normal.

1) Re-install the exhaust nozzle. Refer to the Aircraft Maintenance Manual.

2) Re-install aircraft related hardware. Refer to the Aircraft Maintenance Manual.

3) Re-install the cowling. Refer to the Aircraft Maintenance Manual.

4) Remove DO NOT OPERATE signs.

H. Perform the following engine testing in accordance with 71-00-00, P.B. 501 of the applicable Line Maintenance Manual.

1) Idle Speed and Leak Check Run

2) Vibration Survey

3) Stability / Acceleration Check

4) Performance Check

I. Record the accomplishment of this service document in the engine logbook.

J. If work is not performed by Williams International, to ensure compliance is documented, please complete the Certificate of Compliance and email to WIProductSupport@williams-int.com.

3. Accomplishment Instructions – FJ44-3A & FJ44-3A-24

A. Prepare the engine for maintenance as applicable.

1) Install DO NOT OPERATE signs.

2) Open the circuit breakers to isolate the engine electrical supply.

3) Remove the cowling. Refer to the Aircraft Maintenance Manual.

4) Remove Aircraft Exhaust Nozzle. Refer to the Aircraft Maintenance Manual.

B. Remove the Rear Bypass Duct Assembly in accordance with TASK 72-00-71-020-801 of the applicable Line Maintenance Manual.

C. Remove the HP Turbine Rotor Assembly containing P/N 67093 HPT Disk in accordance with TASK 72-00-51-020-801 of the applicable Engine Manual.

D. Install the HP turbine rotor assembly containing a P/N 223724 (FJ44-3A/3A-24) or 223804 (FJ44-3A-24 only) HPT disk in accordance with TASK 72-00-51-420-801 of the applicable Engine Manual.

E. Install the Rear Bypass Duct Assembly in accordance with TASK 72-00-71-420-801 of the applicable Line Maintenance Manual.

F. Put the aircraft back to normal.

1) Re-install the exhaust nozzle. Refer to the Aircraft Maintenance Manual.

2) Re-install aircraft related hardware. Refer to the Aircraft Maintenance Manual.

3) Re-install the cowling. Refer to the Aircraft Maintenance Manual.

4) Remove DO NOT OPERATE signs.

G. Perform the following engine testing in accordance with 71-00-00, P.B. 501 of the applicable Line Maintenance Manual.

1) Idle Speed and Leak Check Run

2) Vibration Survey

3) Stability / Acceleration Check

4) Performance Check

H. Record the accomplishment of this service document in the engine logbook.

I. If work is not performed by Williams International, to ensure compliance is documented, please complete the Certificate of Compliance and email to WIProductSupport@williams-int.com.

CERTIFICATE OF COMPLIANCE

TO: Operator, Service Center, or Repair Center Performing Service Document

Upon completion of this document, please fill in the information requested below. Return this information to Williams International by scanning and emailing to WIProductSupport@williams-int.com. If email is not available, please return by regular mail.

Williams International
2000 Centerpoint Parkway
Pontiac, MI 48341, USA
Attention: Product Support

Engine Part No.		Engine Model No.		A/C Serial No.	

Engine Serial No.	No. 1	No. 2
Engine Time Since New	No. 1	No. 2
Engine Cycles Since New	No. 1	No. 2
Installed Component Part No.	No. 1	No. 2
Installed Component Serial No.	No. 1	No. 2
Installed Component Time Since New	No. 1	No. 2
Installed Component Cycles Since New	No. 1	No. 2
Date of Compliance:		

I certify the following service document has been accomplished:

Service Document Title: **Engine – High Pressure Turbine Disk – Replace**

Print Name: _____

Signature: _____ Date: _____

Title: _____ Representing: _____